

## Amino Acid Supplement May Help People With HIV

Can people infected by HIV improve their antioxidant status with supplements of cysteine, an amino acid? Scientists in Texas have findings that may help answer this question. Antioxidants boost the body's immune system. They also protect our organs from damage by a destructive form of oxygen normally produced in cells' metabolic reactions. But medical researchers know that levels of the antioxidant glutathione (GSH) can fall as a result of HIV infection. HIV patients with low GSH levels have increased secondary infections and cancers and higher mortality. But some scientists have shown that a form of cysteine called NAC, short for N-acetylcysteine, can raise GSH. Other studies suggest NAC is ineffective. In the Texas study, HIV-infected volunteers who took NAC increased their GSH-making efficiency. The amount of GSH in blood cells increased. This confirms other findings—in the United States, Brazil, Mexico, and Germany—that NAC is helpful. The Houston study may also shed light on why HIV infection lowers GSH. The scientists concluded that the HIV-infected volunteers may have been producing the antioxidant too slowly rather than using it too quickly. The study of GSH synthesis was small—five HIV-infected volunteers and five healthy ones. But researchers used an in-depth method, amino acids tagged with stable isotopes, to measure GSH synthesis. *Farook Jahoor, USDA-ARS Children's Nutrition Research Center at Baylor College of Medicine, Houston, Texas; phone (713) 798-7084, e-mail fjahoor@bcm.tmc.edu.*

KAY ASAY



**RoadCrest, a new crested wheatgrass selected for rhizome development, finer leaves, and shorter stature, is under evaluation near Logan, Utah.**

## New Grass To Hold the Roadside

A new erosion-fighting grass may appear on western roadsides and highways within a few years. RoadCrest crested wheatgrass tolerates cold and drought and readily forms rhizomes—horizontal underground stems that send up new shoots. RoadCrest was developed over 15 years of studies by scientists with ARS and Utah State University. Tests in four states indicate it should thrive in temperate, semiarid areas of Intermountain and western Great Plains states. In these regions, it is best suited where summer temperatures are mild and annual precipitation ranges from 10 to 20 inches. Compared to many other crested wheatgrasses, RoadCrest greens up earlier in spring. It requires less seed to establish a good stand and forms rhizomes more vigorously. RoadCrest also is shorter—a trait that helps reduce the need for mowing. The new grass is descended from plants grown from seeds collected in

Turkey. Seed should be on sale by 2000. *Kay H. Asay, USDA-ARS Forage and Range Research Unit, Logan, Utah; phone (435) 797-3069, e-mail khasay@cc.usu.edu.*

## Anticipating a Nematode's Progress Could Stave It Off

ARS researchers have blazed a shortcut to identifying soybean lines that can stand up to the soybean cyst nematode. They did this by developing a super strain of the wormlike pest that they keep confined in a lab for studies. The nematode has caused woe to growers since its discovery in 1954 in North Carolina. Now found in most soybean-producing states, it causes greater losses than all other soybean pathogens combined. It ruined nearly 220 million bushels of soybeans in 1997. Further, the nematode has consistently overcome whatever resistance has been available in commercial soybeans. Today, the Hartwig cultivar developed by the University of Missouri is the only commercial bean resistant to all nematode races known to be in farmers' fields. The researchers' new approach is aimed at having a remedy available on the inevitable day when Hartwig-resistant nematodes begin appearing in fields. In greenhouse tests, the scientists bred 30 generations of nematodes on Hartwig plants. This resulted in a strain capable of feeding—and reproducing—on this ordinarily highly resistant cultivar. Special precautions keep the new nematode strain safely confined. Researchers will use it as a test population to get a bead on soybean lines that may hold promise as new sources of natural resistance. *Lawrence D. Young, USDA-ARS Crop Genetics and Production Research Unit, Jackson, Tennessee; phone (901) 425-4741, e-mail YOUNGL@ars.usda.gov.*